



Missouri Department of Natural Resources

## Total Maximum Daily Load Information Sheet

### Grindstone Reservoir

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#### Waterbody Segment at a Glance:

**County:** DeKalb  
**Nearby Cities:** Cameron, Osborn  
**Area of impairment:** 180 Acres  
**Pollutant:** Atrazine  
**Source:** Corn, Sorghum Production

**No longer proposed for addition to 2002 303(d) List**

**TMDL Priority Ranking:** Not assigned



State map showing location of watershed

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#### Description of the Problem

##### Beneficial uses of Grindstone Reservoir:

- Livestock and Wildlife Watering
- Protection of Warm Water Aquatic Life and Human Health associated with Fish Consumption
- Drinking Water Supply

##### Use that is impaired

- Drinking Water Supply

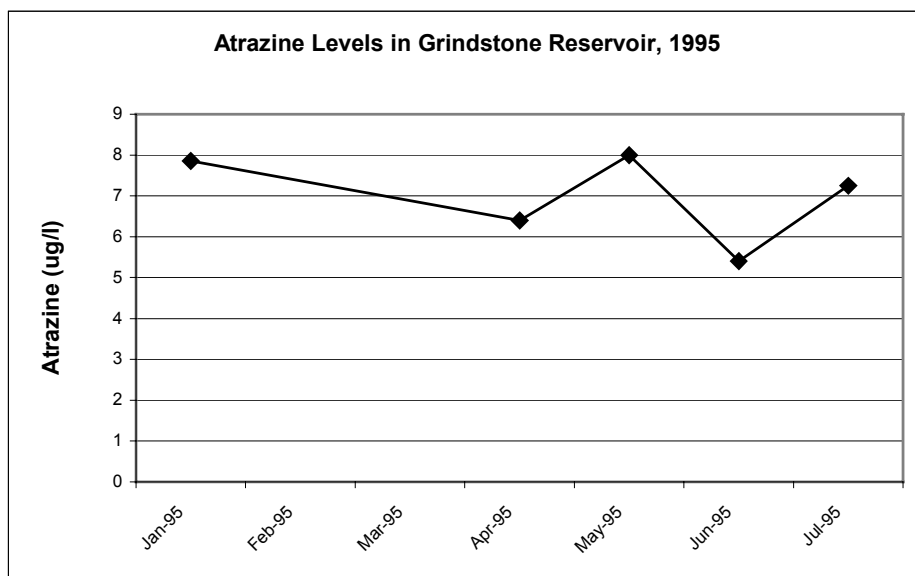
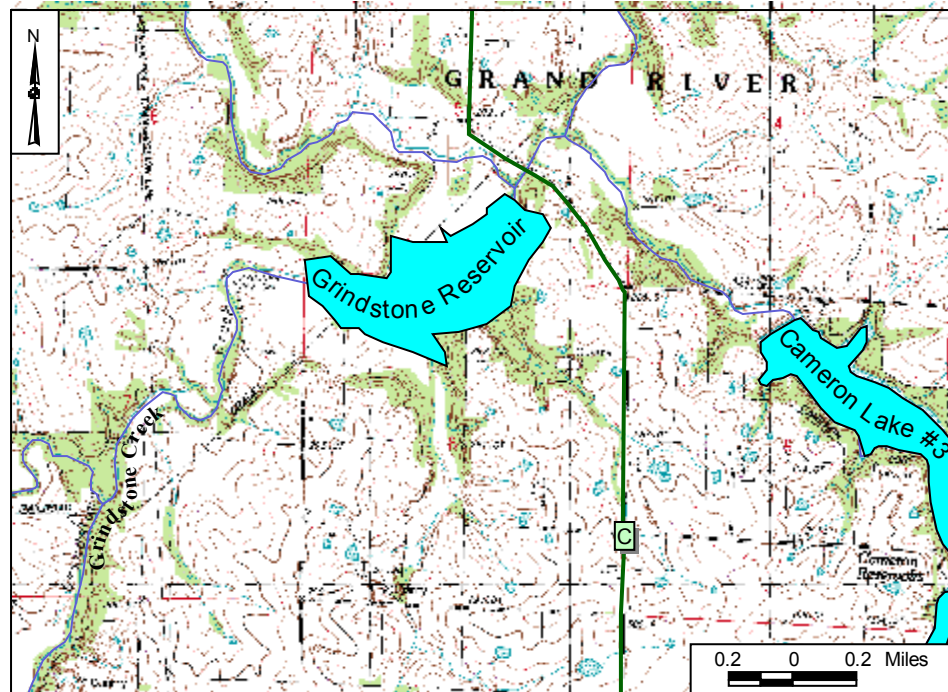
##### Standards that apply:

- The impairment of this lake is based on exceedence of the specific criterion of 3 micrograms per liter ( $\mu\text{g/L}$ ) atrazine, as an average of the period of record, contained in Missouri's Water Quality Standards 10 CSR 20-7.031, Table A.

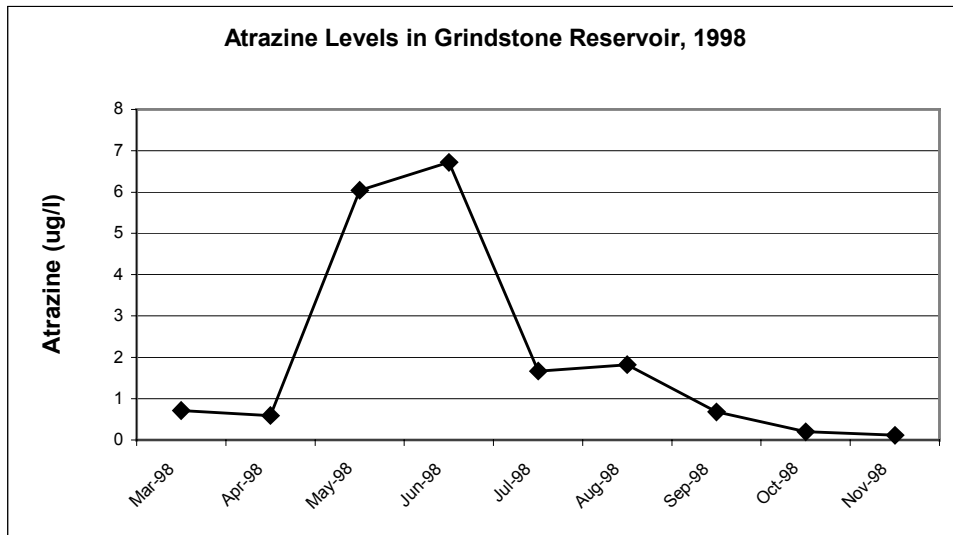
At 180 acres, Grindstone Reservoir is the largest of the four reservoirs serving as a drinking water supply source for 8,300 people in Cameron. The city also sells wholesale, treated water from these lakes to Caldwell County Public Water Supply District (PWSD) No. 2, which serves 500 people, and Clinton County PWSD No.3, which serves 3,200 people. Runoff from corn and sorghum production areas in the watershed has resulted in measurable amounts of atrazine being detected within the lake. Atrazine is a widely used herbicide for control of broadleaf weeds. It is the most heavily used herbicide applied to corn and grain sorghum in Missouri. Atrazine is considered a possible human carcinogen, so the state standard is set at the very low level of three  $\mu\text{g/L}$  or parts per billion. Grindstone Reservoir has been sampled for herbicides 19 times since 199. Sampling agencies include Missouri Department of Natural Resources, the city of Cameron and the U.S. Geological Survey. The average atrazine concentration based on those samples is 2.52  $\mu\text{g/L}$ , as of March 2002. So, although Grindstone Reservoir was considered for the 2002 303(d) list, it is no

longer a candidate. The long term average atrazine level in the drinking water supplied to Cameron from the four reservoir system is 1.48  $\mu\text{g/L}$ , safely below the state limit.

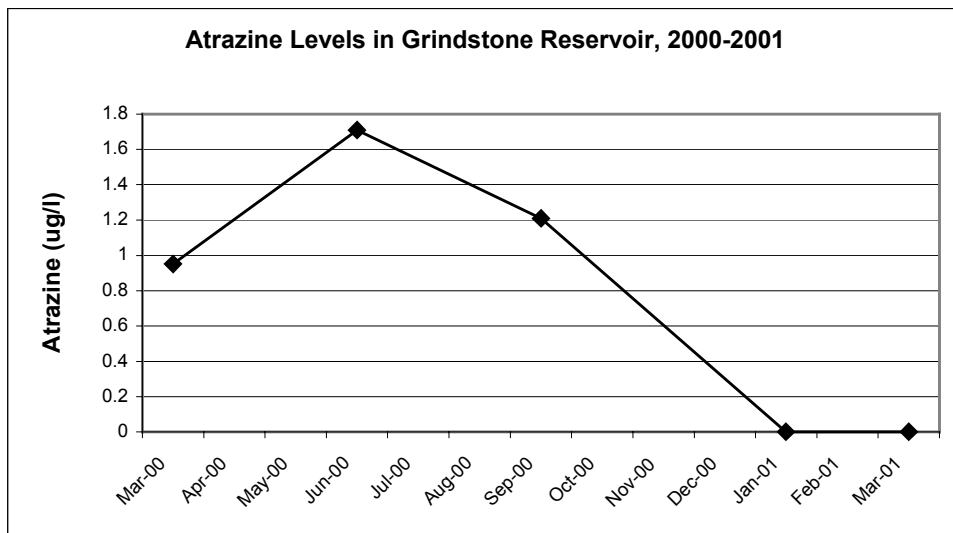
### Map of Grindstone Reservoir in DeKalb County, Missouri



Source: City of Cameron, MO



Source: U.S. Geological Survey



Source: Missouri Department of Natural Resources

**For more information call or write:**

Missouri Department of Natural Resources

Water Pollution Control Program

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